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Disseminated hydatid disease mistaken for polycystic kidney disease by ultrasound

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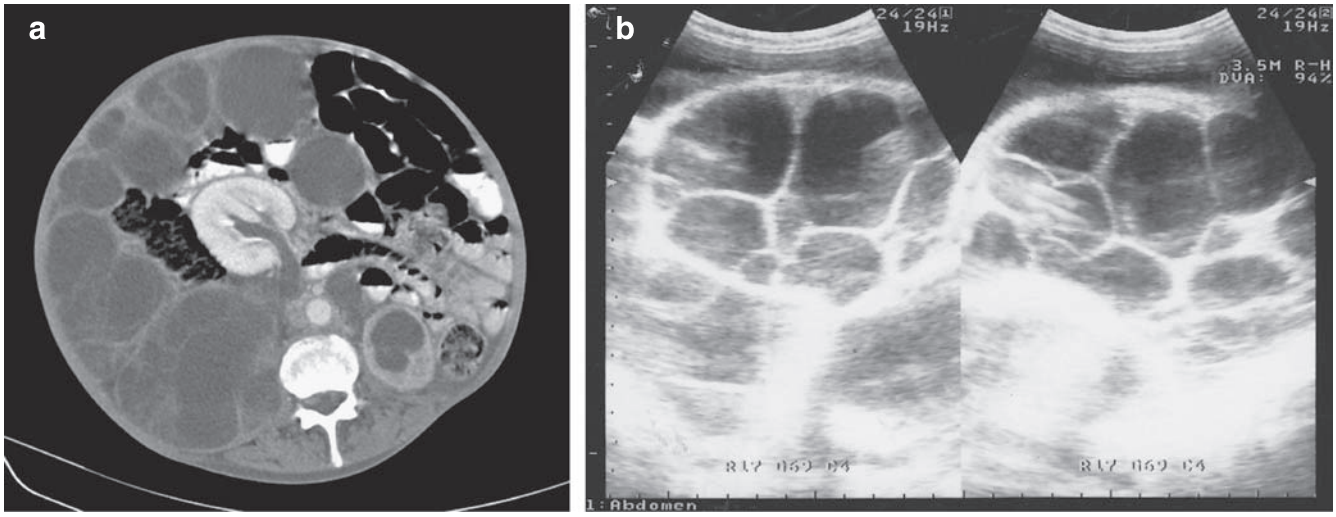

Figure 1 | Disseminated abdominal, retroperitoneal, and pelvic hydatid disease. (**a**) The right kidney is pushed to the midline and the left kidney is hydronephrotic and shrunken by retroperitoneal hydatid cysts. (**b**) Ultrasound of the abdomen showing cystic lesions in the retroperitoneum in the position of the kidneys.

A 75-year-old man presented with straining and increased frequency at micturition for a week and abdominal distension for 2 months. The swelling was diffuse but prominent over both the flanks. The abdomen showed bimanually palpable and ballotable masses in the loin suggestive of renal mass. The surface was irregular and a diagnosis of polycystic kidney disease was considered. An ultrasound of the abdomen confirmed the clinical suspicion of polycystic kidney with cysts in the liver also. Blood urea nitrogen level was 13.6 mmol/l, serum creatinine level was 247.5 μmol/l, and the electrolytes and liver function tests were normal. Serum albumin level was 33 g/l and the 24-h urine protein concentration was 0.37 g/day. The patient had dysuria, his urine showed leukocyturia, the culture grew *Escherichia coli* sensitive, and he was treated for urinary tract infection. He was catheterized with a per-urethral catheter for retention of urine. Two liters of urine was drained and his renal function improved with a serum creatinine concentration of 97.3 μmol/l.

As the post-void residual was 370 ml, a cystoscopy was done and it showed normal anterior and posterior urethra with normal prostate and extensive compression of the bladder neck by a retroperitoneal lesion. The pathognomic finding of multiple small low-density daughter cysts within the primary mother cyst found in computed tomography of the abdomen clinched the diagnosis of disseminated hydatidosis (Figure 1a). The diagnosis was missed by ultrasound imaging as the left hydronephrotic and shrunken kidney merged with the retroperitoneal hydatid cysts and the right relatively normal kidney was in an ectopic position due to the pressure effect from the large retroperitoneal and intra-abdominal cysts (Figure 1b). The patient refused any treatment and was lost to follow-up.